

Amendments to the Claims:

The following listing of claims replaces all other versions of claims previously presented.

Listing of Claims:

1 (Withdrawn): A chamfered freestanding nitride semiconductor wafer having an edge of roughness between Ra10nm and Ra5 μ m.

2 (Withdrawn): The nitride semiconductor wafer according to claim 1, wherein the nitride semiconductor is gallium nitride (GaN).

3 (Withdrawn): The nitride semiconductor wafer according to claim 1, wherein the roughness of the edge ranges from Ra10nm to Ra1 μ m.

4 (Withdrawn): The nitride semiconductor wafer according to claim 3, wherein the nitride semiconductor is gallium nitride (GaN).

5 (Withdrawn): The nitride semiconductor wafer according to claim 1, wherein the roughness of the edge ranges from Ra10nm to Ra0.1 μ m.

6 (Withdrawn): The nitride semiconductor wafer according to claim 5, wherein the nitride semiconductor is gallium nitride (GaN).

7 (Currently Amended): A method of chamfering a nitride semiconductor wafer comprising the steps of:

preparing a soft whetting apparatus having a long continually-fed elastic matrix and whetting granules implanted on the matrix;

bringing the elastic matrix into angular inscribing contact with an edge of the circular nitride wafer with an angular contact angle of 40 degrees to 90 degrees at a pressure;

supplying the matrix with a whetting liquid which is powderless water, powderless oil, powder including water, or powder including oil; rotating the nitride wafer in the inscribing contact with the elastic matrix; feeding the elastic matrix at a constant speed or varying speeds in the angular direction around the wafer edge; and abrading the edge of the wafer by the granules implanted on the soft matrix into edge roughness of Ra5 μ m to Ra10nm.

8 (Original): The method according to claim 7, wherein the continually-fed elastic matrix is a tape and the whetting granules are implanted on the tape.

9 (Original): The method according to claim 8, wherein the granules implanted on the tape have sizes from #300 to #5000.

10 (Original): The method according to claim 8, wherein the feeding speed of the tape is 5mm/min to 60mm/min.

11 (Original): The method according to claim 10, wherein the chamfering method includes three steps, a first step uses a whettape of #300 to #1000, a second step uses another whettape of #1000 to #2500 and a third step uses another whettape of #2500 to #5000.

12 (Original): The method according to claim 11, wherein the first step employing a whettape of #800 produces an edge of roughness of Ra0.9 μ m, the second step employing a whettape of #2000 produces an edge of roughness of Ra0.3 μ m and the third step employing a whettape of #3000 produces an edge of roughness of Ra0.1 μ m.

13 (Original): The method according to claim 8, wherein the pressure acting between the wafer edge and the whettape is 1kg/cm² to 10kg/cm².

14 (Original): The method according to claim 8, wherein the whetting granules fixed on the tape are silicon carbide (SiC), alumina (Al₂O₃), diamond (C) or silica (SiO₂).

15 (Original): The method according to claim 14, wherein the liquid includes granules of silicon carbide (SiC), alumina (Al₂O₃), diamond (C) or colloidal silica (SiO₂).

16 (Original): The method according to claim 8, wherein the whettape is made of cloths, polyurethane, leather, rubber, or paper.

17 (Original): The method according to claim 8, wherein the contact between the wafer edge and the whettape has a wide angular area of 40 degrees to 90 degrees as a central angle of the wafer.

18 (Original): The method according to claim 7, wherein the nitride semiconductor wafer to be chamfered is gallium nitride (GaN).

19 (Original): The method according to claim 7, wherein the nitride semiconductor wafer to be chamfered is indium nitride (InN).

20 (Original): The method according to claim 7, wherein the nitride semiconductor wafer to be chamfered is aluminum nitride (AlN).